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Pertussis Report, Wisconsin, 2015 July 1, 2015

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Using information reported to the Wisconsin Division of Public Health (DPH) via the Wisconsin Electronic Disease Surveillance System (WEDSS), this report summarizes pertussis case occurrence and investigation activity in Wisconsin during 2015. A summary of the DPH guidelines for the prevention and control of pertussis, including links to important resources, can be found starting at the bottom of this page.

SUMMARY OF CASES

- During January 1 through June 30, 2015, 241 cases (167 confirmed and 74 probable) of pertussis with onset during 2015 were reported among Wisconsin residents. In comparison, 542 cases were reported during the same time period in 2014 and 536 cases were reported during the same time period in 2013 (**Figure 1**). Note: Additional cases may have occurred during recent weeks that have not been completely investigated or reported to DPH.
- 39 of the 72 Wisconsin counties have reported cases in 2015. The greatest numbers were reported from Milwaukee, Dane, and Waukesha Counties. Incidence was highest in Rusk, Chippewa and Douglas Counties (**Figure 2**).
- Median patient age at cough onset was 13 years (range: <1 month to 74 years). Statewide, and in every region, occurrence was highest among infants (**Figures 3 and 4**).
- Among case patients, 9 (4%) had reported hospitalizations; 7 were aged <1 year. The median length of stay was 3 days.
- No deaths have been reported.
- Among case patients aged ≤10 years, 66% were up to date for age with pertussis immunizations before cough onset. Among case patients aged 11 to 18 years, 91% had reportedly received Tdap before cough onset.
- 33 (14%) reported cases occurred among children aged <1 year. Among these case patients, 27 (82%) were aged <6 months and 7 (21%) were hospitalized. Additionally, 48% were up to date for age with pertussis immunizations, 26% were too young for immunization, 13% were under-immunized for age and 13% were eligible for another dose.

SUMMARY OF INVESTIGATION ACTIVITY

- The rate of new pertussis investigations (an estimate of the current rate of pertussis activity) has decreased in all Wisconsin regions since December 2014 (**Figure 5**) and is similar to the rate of pertussis activity before the 2012 outbreak.
- During January 1 through June 30, 2015, 29 new *Bordetella parapertussis* infections were reported, compared to 40 reported during the same time period in 2014.

PREVENTION AND CONTROL OF PERTUSSIS

- For detailed DPH guidelines: <http://www.dhs.wisconsin.gov/immunization/pertussis.htm>
<https://www.dhs.wisconsin.gov/publications/p0/p00637.pdf>
- **Infected individuals are most contagious during the catarrhal stage and the first 2 weeks after cough onset.** While pertussis and parapertussis are illnesses characterized by prolonged cough, waiting until a patient has a cough of 2 or more weeks duration before considering a diagnosis of pertussis will result in substantial transmission of *Bordetellae* to others. When

pertussis is known to be occurring in a community, recognition of pertussis during the catarrhal stage of illness should be enhanced, particularly when a patient with catarrhal stage illness had known contact with a patient who has a confirmed or probable pertussis.

- Test for *B. pertussis* only in patients with an acute cough illness suspected of having pertussis. Test with both PCR and culture whenever possible. If only one test can be conducted, test with PCR.
- Treat with a recommended macrolide, regardless of vaccination status, if the patient has been coughing for 21 days or less (42 days or less if the patient is an infant).
- Isolate until 5 full days of appropriate antibiotic treatment have been completed.
- Recommend prophylaxis for high-risk close contacts if the contact occurred within the last 21 days.
- Immunize according to ACIP recommendations:
<http://www.cdc.gov/vaccines/hcp/acip-recs/index.html>
- Report suspected cases to your local health department: <http://www.dhs.wisconsin.gov/localhealth>.
- Contact your DPH Regional Immunization Representative if you have other questions about pertussis or about this report: <http://www.dhs.wisconsin.gov/localhealth/counties/regional.htm>.

DEFINITIONS

Case: An acute cough illness, with a completed investigation, meeting the CDC/CSTE case definition for confirmed or probable pertussis. CDC/CSTE definitions: <http://www.cdc.gov/pertussis/surv-reporting.html#case-definition>.

Investigation: The follow-up interview and actions taken by the local health department to control disease in an individual with a suspected case of pertussis and prevent disease among the individual's close contacts.

Figure 1. Number of reported confirmed and probable cases of pertussis by month and year of cough onset, Wisconsin, January 1, 2011 through June 30, 2015

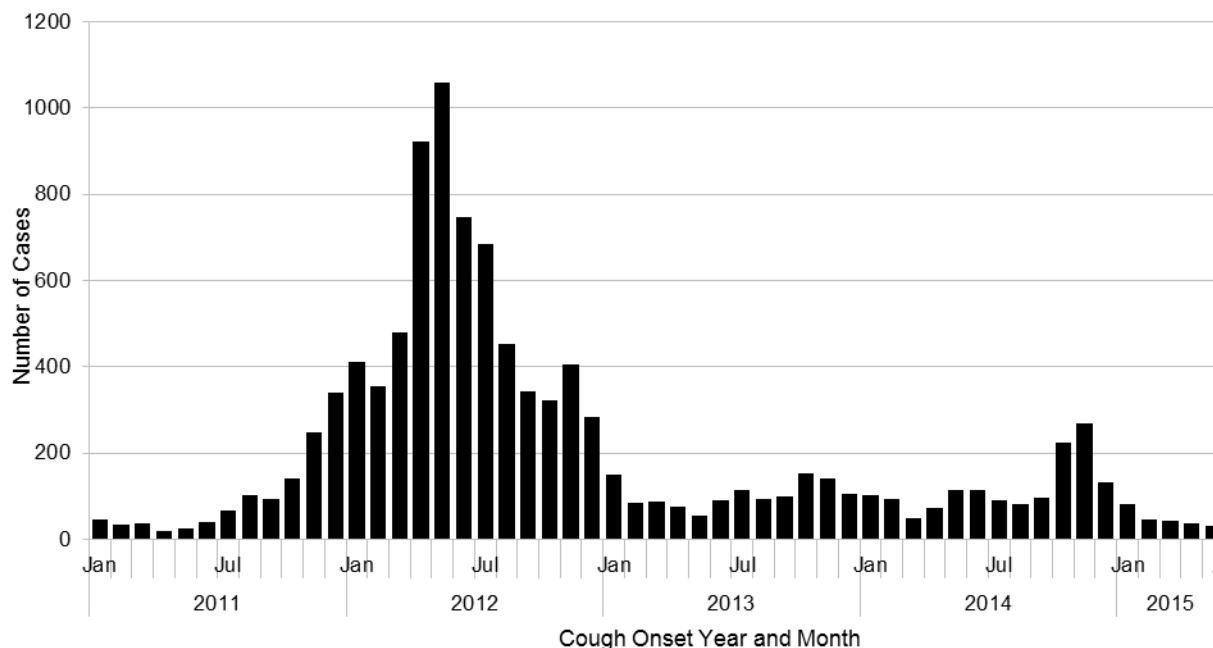
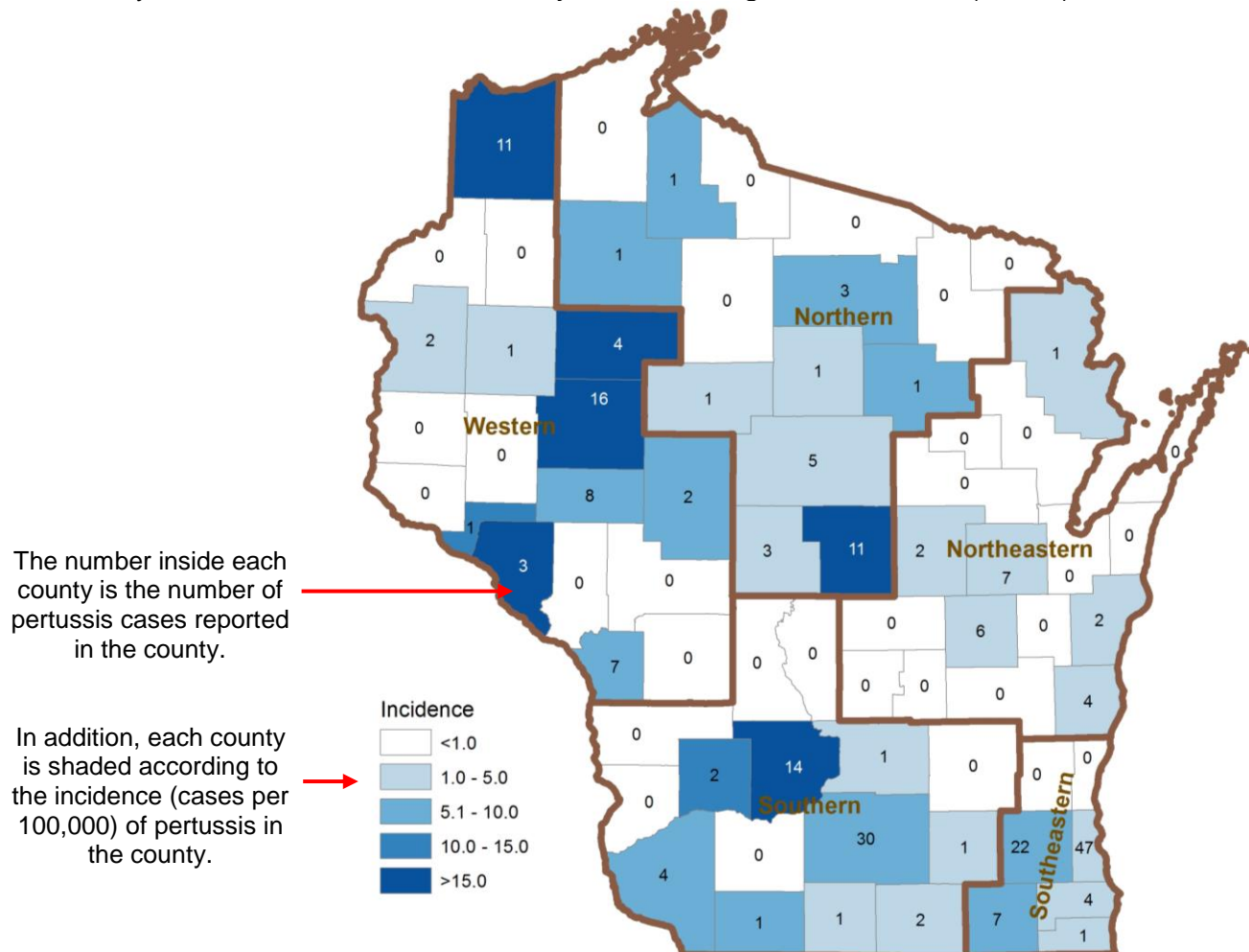


Figure 2. Number and incidence* of reported confirmed and probable cases of pertussis, by county of residence, Wisconsin, January 1, 2015 through June 30, 2015 (N=241)



*Incidence is the number of cases reported during the specified time interval per 100,000 persons

Figure 3. Incidence of confirmed and probable pertussis cases, by age group and public health region, Wisconsin, January 1, 2015 through June 30, 2015 (N=241)

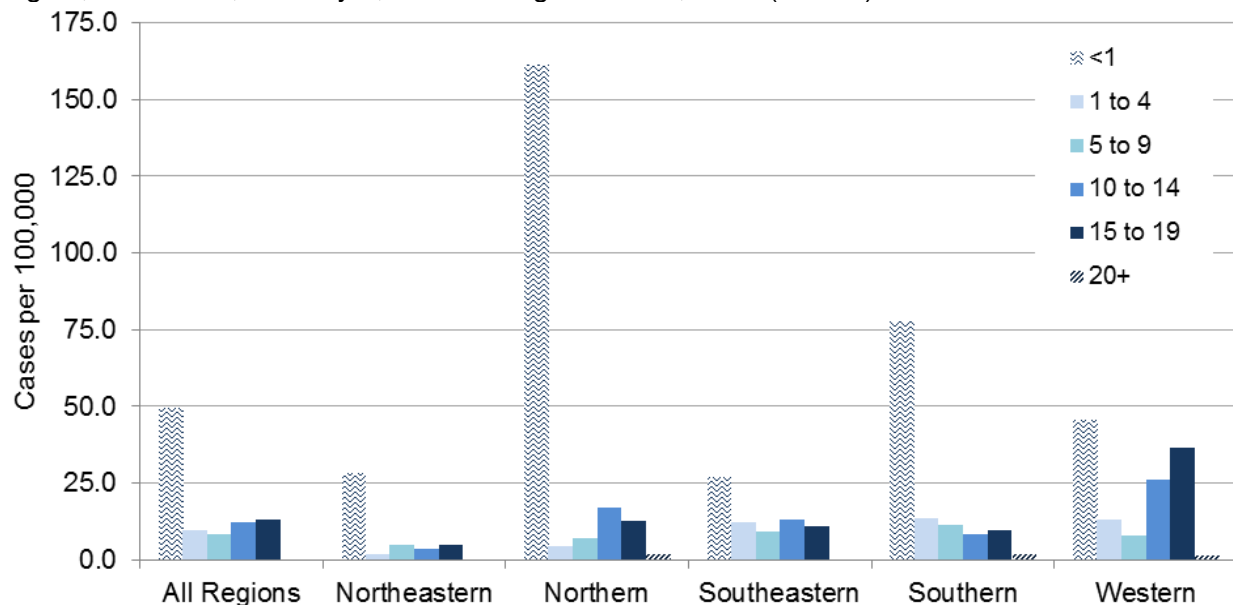


Figure 4. Number of reported confirmed and probable cases of pertussis among children aged ≤ 18 years, by age at onset, Wisconsin, January 1, 2015 through June 30, 2015 (N=187)

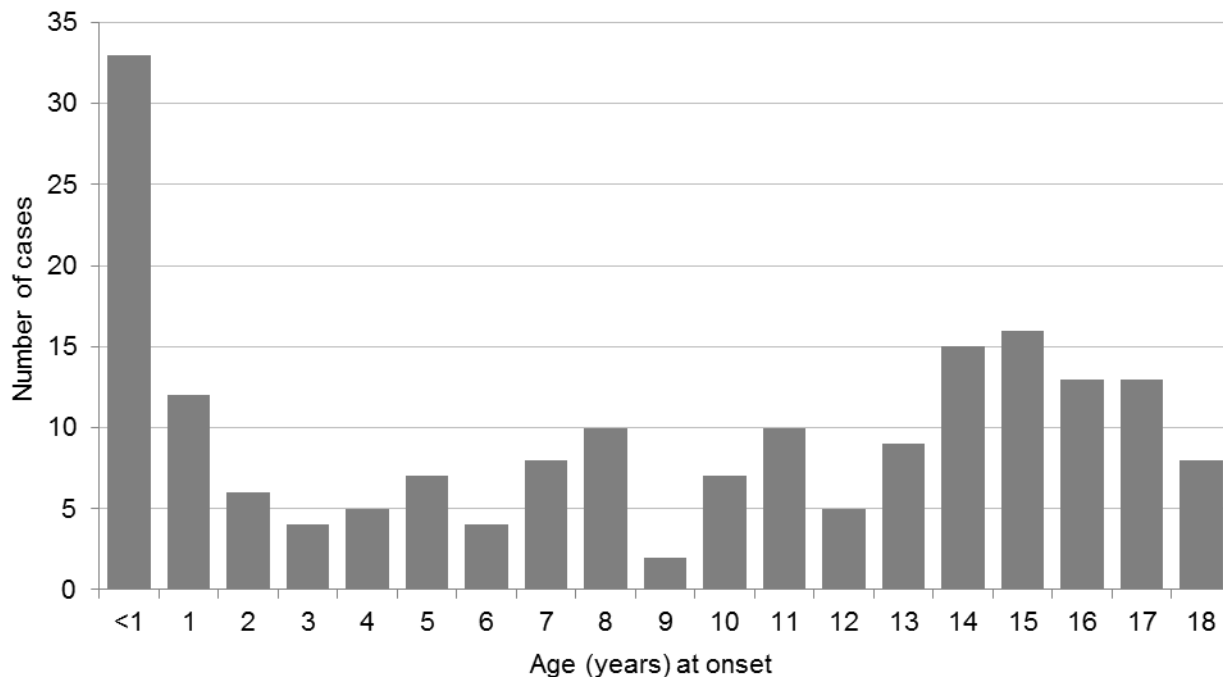


Figure 5. Number of new pertussis investigations (per 100,000), by public health region and month of report to the local health department, Wisconsin, June 1, 2011 through June 30, 2015

